

NONTECHNICAL SOIL DESCRIPTIONS
Tri-County Area, North Dakota

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units, shown in the NonTechnical Descriptions report. These descriptions are written in terminology that Non-technical users of soil survey information can understand. Nontechnical soil descriptions are a powerful tool for creating reports. These high quality, easy to read reports can be generated by conservation planners and other NRCS employees for distribution to land users. Soil map unit descriptions and National Soil Information System records are the basis for these descriptions.

Ad Aberdeen Silt Loam

Aberdeen soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is very slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Clayey range site. It is in the nonirrigated land capability class 3s.

An Arveson Fine Sandy Loam

Arveson soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. This soil does not have a salinity problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 3w.

Ar Arveson Fine Sandy Loam, Moderately Shallow

Arveson, MODERATELY SHALLOW, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. This soil does not have a salinity problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 3w.

Aw Arveson Loam

Arveson soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. This soil does not have a salinity problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 2w.

BaB Barnes Loam, Undulating

Barnes soils make up 79 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

BbC Barnes-Buse Loams, Rolling

Barnes soils make up 59 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
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Buse soils make up 30 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 4e.

BbD Barnes-Buse Loams, Strongly Rolling

Barnes soils make up 54 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 4e.

Buse soils make up 40 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 6e.

BdB Barnes-Svea Loams, Undulating

Barnes soils make up 65 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

Svea soils make up 25 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

Be Bearden Silt Loam

Bearden soils make up 95 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Bf Bearden Silty Clay Loam

Bearden soils make up 98 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Bg Bearden Soils, Saline

Bearden, SALINE, soils make up 89 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
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Bh Bearden-Overly Silt Loams

Bearden soils make up 55 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Overly soils make up 40 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Bo Borup Silt Loam

Borup soils make up 90 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 15 inches. This soil contains a slightly saline horizon. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 2w.

Bp Borup Silt Loam, Very Wet

Borup, VERY WET, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is very poorly drained. The slowest permeability is moderately rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. This soil contains a slightly saline horizon. This soil is in the Wetland range site. It is in the nonirrigated land capability class 3w.

BuD Buse Loam, Hilly

Buse soils make up 99 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 7e.

Dc Dimmick Clay

Dimmick soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is very poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Wetland range site. It is in the nonirrigated land capability class 3w.

Dv Divide Loam

Divide soils make up 95 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

EcA Eckman Loam, Nearly Level

Eckman soils make up 84 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

EcB Eckman Loam, Undulating

Eckman soils make up 79 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

EcC Eckman Loam, Rolling

Eckman soils make up 79 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 3e.

EgB Eckman Loam, Till Substratum, Undulating

Eckman, TILL SUBSTRATUM, soils make up 84 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

EnA Egeland Fine Sandy Loam, Nearly Level

Egeland soils make up 80 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

EnB Egeland Fine Sandy Loam, Undulating

Egeland soils make up 90 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

Eo Embden Fine Sandy Loam

Embden soils make up 84 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Ep Embden-Gardena Complex

Embden soils make up 64 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

Gardena soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Es Embden-Glyndon Fine Sandy Loams

Embden soils make up 54 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

Glyndon soils make up 45 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Et Embden And Hecla Fine Sandy Loams

Embden soils make up 49 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

Hecla soils make up 45 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

Ex Exline Complex

Exline soils make up 70 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is very slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Thin Claypan range site. It is in the nonirrigated land capability class 6s.

Fa Fairdale Silt Loam, Levee

Fairdale, LEVEE, soils make up 98 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Fc Fargo Clay

Fargo soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Clayey range site. It is in the nonirrigated land capability class 2w.

Fg Fargo Silt Loam

Fargo soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Clayey range site. It is in the nonirrigated land capability class 2w.

Fh Fargo Silty Clay Loam

Fargo soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Clayey range site. It is in the nonirrigated land capability class 2w.

Fk Fargo Silty Clay Loam, Saline

Fargo, SALINE, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 18 inches. This soil contains a moderately saline horizon. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

Fn Fargo-Exline Silty Clay Loams

Fargo soils make up 70 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Clayey range site. It is in the nonirrigated land capability class 2w.

Exline soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is very slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Thin Claypan range site. It is in the nonirrigated land capability class 6s.

Fw Southam Soils

Southam soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is very poorly drained. The slowest permeability is very slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Wet C1 (wetland H6) range site. It is in the nonirrigated land capability class 8w.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

GbA Gardena Loam, Very Deep, Nearly Level

Gardena, VERY DEEP, soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

GbB Gardena Loam, Very Deep, Undulating

Gardena, VERY DEEP, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

GcA Gardena Loam, Deep, Nearly Level

Gardena, DEEP, soils make up 84 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

GdA Gardena Loam, Moderately Shallow, Nearly Level

Gardena, MODERATELY SHALLOW, soils make up 85 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

GdB Gardena Loam, Moderately Shallow, Undulating

Gardena, MODERATELY SHALLOW, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

GeA Gardena Loam, Till Substratum, Nearly Level

Gardena, TILL SUBSTRATUM, soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

GfA Gardena-Eckman Loams, Till Substratum, Nearly Level

Gardena, TILL SUBSTRATUM, soils make up 65 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Eckman soils make up 35 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 2c.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

GgA Gardena-Glyndon Loams, Nearly Level

Gardena soils make up 55 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Glyndon soils make up 44 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

GkA Gardena-Glyndon Loams, Till Substratum, Nearly Level

Gardena, TILL SUBSTRATUM, soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Glyndon soils make up 39 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. This soil does not have a salinity problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

GmA Glyndon Loam, Very Deep, Nearly Level

Glyndon, VERY DEEP, soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

GmB Glyndon Loam, Very Deep, Undulating

Glyndon, VERY DEEP, soils make up 90 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

GnA Glyndon Loam, Deep, Nearly Level

Glyndon, DEEP, soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

GsA Glyndon-Borup Loams, Strongly Saline, Nearly Level

Glyndon, STRONGLY SALINE, soils make up 50 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 27 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a moderately saline horizon. This soil does not have a sodium problem. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Borup, STRONGLY SALINE, soils make up 50 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 40 percent calcium carbonate. This soil contains a moderately saline horizon. This soil does not have a sodium problem. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

GtA Glyndon And Gardena Loams, Nearly Level

Glyndon soils make up 59 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Gardena soils make up 40 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

GuA Glyndon And Hamerly Loams, Saline, Nearly Level

Glyndon, SALINE, soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

Hamerly soils make up 39 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

Ha Hamar Fine Sandy Loam

Hamar soils make up 75 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. The soil contains a maximum amount of 2 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Subirrigated Sands range site. It is in the nonirrigated land capability class 3e.

Hb Hamar-Ulen Fine Sandy Loams

Hamar soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 2 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 3w.

Ulen soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

HdB Hamerly Complex, Undulating

Hamerly soils make up 90 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

HeA Hamerly Loam, Nearly Level

Hamerly soils make up 99 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

HgB Hamerly-Barnes Loams, Undulating

Hamerly soils make up 49 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Barnes soils make up 40 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

HkAx Hecla Fine Sand, Nearly Level

Hecla soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. This soil does not have a salinity problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 6e.

HlAx Hecla Fine Sandy Loam, Nearly Level

Hecla soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 54 inches. This soil does not have a salinity problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

HmA Hecla Fine Sandy Loam, Moderately Shallow, Nearly Level

Hecla, MODERATELY SHALLOW, soils make up 84 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

HoAx Hecla Loamy Fine Sand, Loamy Substratum, Nearly Level

Hecla, LOAMY SUBSTRATUM, soils make up 85 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

HpAx Hecla Loamy Fine Sand, Moderately Shallow, Nearly Level

Hecla, MODERATELT SHALLOW, soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

HrA Hecla Sandy Loam, Loamy Substratum, Nearly Level

Hecla, LOAMY SUBSTRATUM, soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Thin Sands range site. It is in the nonirrigated land capability class 3e.

HsAx Hecla Soils, Nearly Level

Hecla soils make up 50 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

Hecla, FINE SANDY LOAM, soils make up 49 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

HtAx Hecla And Embden Fine Sandy Loams, Nearly Level

Hecla soils make up 59 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 54 inches. This soil does not have a salinity problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

Embden soils make up 40 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

HuB2 Hecla-Hamar Complex, Hummocky, Eroded

Hecla, HUMMOCKY, ERODED, soils make up 75 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. This soil does not have a salinity problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 6e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Hamar, HUMMOCKY, ERODED, soils make up 25 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 2 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 4w.

HvAx Hecla And Hamar Loamy Fine Sands, Nearly Level

Hecla soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

Hamar soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 2 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 4w.

HxAx Hecla-Ulen Fine Sandy Loams, Nearly Level

Hecla soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 54 inches. This soil does not have a salinity problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

Ulen soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

HyAx Hecla-Ulen Fine Sandy Loams, Loamy Substratum, Nearly L Evel

Hecla, LOAMY SUBSTRATUM, soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

Ulen, LOAMY SUBSTRATUM, soils make up 39 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

La Lamoure Silty Clay Loam

Lamoure soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 9 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 2w.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Lf La Prairie And Fairdale Soils

La Prairie soils make up 50 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 51 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Overflow range site. It is in the nonirrigated land capability class 6w.

Fairdale, OCCASIONALLY FLOODED, soils make up 49 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Overflow range site. It is in the nonirrigated land capability class 6w.

Lp La Prairie Silt Loam

La Prairie soils make up 90 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 51 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

MaAx Maddock Fine Sandy Loam, Nearly Level

Maddock soils make up 80 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

MaBx Maddock Fine Sandy Loam, Undulating

Maddock soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

MaCx Maddock Fine Sandy Loam, Rolling

Maddock soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 4e.

MdAx Maddock Loamy Fine Sand, Nearly Level

Maddock soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

MdBx Maddock Loamy Fine Sand, Undulating

Maddock soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

MhD Maddock Soils, Hilly

Maddock soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 3 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Thin Sands range site. It is in the nonirrigated land capability class 7e.

MkAx Maddock Loamy Fine Sand, Moderately Shallow, Nearly Lev El

Maddock, MODERATELY SHALLOW, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

Mx3 Maddock-Hamar Complex, Severely Eroded

Maddock, SEVERELY ERODED, soils make up 70 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 3 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Thin Sands range site. It is in the nonirrigated land capability class 6e.

Hamar soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. The soil contains a maximum amount of 2 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 4w.

OaA Overly Silt Loam, Nearly Level

Overly soils make up 89 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

ObA Overly Silt Loam, Saline, Nearly Level

Overly, SALINE, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 60 inches. This soil contains a moderately saline horizon. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Oca Overly Silty Clay Loam, Nearly Level

Overly soils make up 90 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Bearden soils make up 5 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Oxa Overly-Exline Complex, Nearly Level

Overly soils make up 70 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Exline soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is very slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Thin Claypan range site. It is in the nonirrigated land capability class 6s.

Oya Overly-Gardena Loams, Nearly Level

Overly soils make up 65 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Gardena soils make up 34 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Pa Parnell Soils

Parnell soils make up 100 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is very poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 3 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Wetland range site. It is in the nonirrigated land capability class 3w.

Pe Perella Silt Loam

Perella soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a very high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. This soil does not have a salinity problem. This soil is in the Wet Meadow range site. It is in the nonirrigated land capability class 2w.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Pr Perella Silty Clay Loam

Perella soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. This soil does not have a salinity problem. This soil is in the Wet Meadow range site. It is in the nonirrigated land capability class 2w.

Ra Rauville Soils

Rauville soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is very poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 3 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Wetland range site. It is in the nonirrigated land capability class 3w.

RnA Renshaw And Sioux Loams, Nearly Level

Renshaw soils make up 70 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Shallow To Gravel range site. It is in the nonirrigated land capability class 3s.

Sioux soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is excessively drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Very Shallow range site. It is in the nonirrigated land capability class 6s.

RnB Renshaw And Sioux Loams, Undulating

Renshaw soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Shallow To Gravel range site. It is in the nonirrigated land capability class 3e.

Sioux soils make up 40 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is excessively drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Very Shallow range site. It is in the nonirrigated land capability class 6s.

RsA Renshaw And Sioux Sandy Loams, Nearly Level

Renshaw soils make up 70 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Shallow To Gravel range site. It is in the nonirrigated land capability class 3s.

Sioux soils make up 30 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Very Shallow range site. It is in the nonirrigated land capability class 6s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

RSC Renshaw And Sioux Sandy Loams, Rolling

Renshaw soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Shallow To Gravel range site. It is in the nonirrigated land capability class 3e.

Sioux soils make up 40 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Very Shallow range site. It is in the nonirrigated land capability class 6s.

Sa Sioux Gravelly Loam

Sioux soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Very Shallow range site. It is in the nonirrigated land capability class 7s.

SbC Sioux And Renshaw Loams, Rolling

Sioux soils make up 50 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is excessively drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Very Shallow range site. It is in the nonirrigated land capability class 6s.

Renshaw soils make up 50 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat excessively drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Shallow To Gravel range site. It is in the nonirrigated land capability class 4e.

SCA Spottswood Loam, Loamy Substratum, Nearly Level

Spottswood, LOAMY SUBSTRATUM, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 45 inches. This soil does not have a salinity problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3s.

SdA Spottswood Sandy Loam, Loamy Substratum, Nearly Level

Spottswood, LOAMY SUBSTRATUM, soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

SmA Spottswood-Emdben Sandy Loams, Nearly Level

Spottswood soils make up 55 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Embsen soils make up 45 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

SoA Spottswood-Gardena Loams, Nearly Level

Spottswood soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2s.

Gardena soils make up 40 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

St Stirum-Glyndon Complex

Stirum soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 6s.

Glyndon soils make up 40 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Sx Svea-Barnes Loams

Svea soils make up 60 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Overflow range site. It is in the nonirrigated land capability class 2c.

Barnes soils make up 30 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

Sy Svea-Hamerly Loams

Svea soils make up 55 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Overflow range site. It is in the nonirrigated land capability class 2c.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Hamerly soils make up 40 percent of the map unit. This map unit is in the Central Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

Tf Tiffany Fine Sandy Loam

Tiffany soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 5 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 3w.

Tk Tetonka Silt Loam

Tetonka soils make up 100 percent of the map unit. This map unit is in the Central Black Glaciated Plains Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Wet Meadow range site. It is in the nonirrigated land capability class 2w.

Uc Ulen Complex, Saline

Ulen, SALINE, soils make up 50 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

Ulen, NONSALINE, soils make up 49 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

Uf Ulen Fine Sandy Loam

Ulen soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

Um Ulen Fine Sandy Loam, Loamy Substratum

Ulen, LOAMY SUBSTRATUM, soils make up 79 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

Un Ulen Fine Sandy Loam, Moderately Shallow

Ulen, MODERATELY SHALLOW, soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

Us Ulen-Gardena Fine Sandy Loams

Ulen soils make up 60 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

Gardena soils make up 40 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

Vr Vallers Loam

Vallers soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 21 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 2w.

WeA Fordville Loam, Nearly Level

Fordville soils make up 90 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2s.

WeB Fordville Loam, Undulating

Fordville soils make up 85 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 3e.

WsA Fordville Sandy Loam, Nearly Level

Fordville soils make up 90 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2s.

WsB Fordville Sandy Loam, Undulating

Fordville soils make up 85 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 3e.

ZfB Zell Fine Sandy Loam, Undulating

Zell soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Tri-County Area, North Dakota

ZmB Zell Loam, Undulating

Zell soils make up 100 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 3e.

ZmD Zell Loam, Strongly Rolling

Zell soils make up 99 percent of the map unit. This map unit is in the Red River Valley of the North Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 7e.

